IC 22-10-9

Chapter 9. Transportation Equipment

IC 22-10-9-1

Hoist; supervision; inspection

Sec. 1. (a) Where men are transported into or out of a mine by hoists, a properly certified hoisting engineer shall be on duty continuously while any person is underground, except as provided in subsection (b).

(b) Every hoist used to transport persons at a mine, other than hoists used in excavating shafts or slopes, shall be equipped with overspeed, overwind, and automatic stop controls unless a second engineer is on duty. Every hoist used to transport such persons shall be equipped with brakes capable of stopping the platform, cage, or other device for transporting persons when fully loaded; and with hoisting cable adequately strong to sustain the fully loaded platform, cage, or other device for transporting persons, and have a proper margin of safety. Cages or platforms which are used to transport persons in vertical shafts, except cages or platforms which are also used to transport coal shall be equipped with safety catches that act quickly and effectively in an emergency, and the safety catches shall be tested at least once every two (2) months. Every hoist that is used to transport persons at a mine shall be inspected daily. No engineer shall be required for automatically operated cages or platforms.

(c) The hoisting engineer shall operate the empty cages up and down the shaft at least one (1) round trip at the beginning of each shift and after the hoist has been idle for one (1) hour or more before hoisting or lowering men.

(d) An accurate and reliable indicator, showing the position of the cage or trip, shall be placed so as to be in clear view of the engineer, unless the position of the cage or trip is clearly visible to the engineer at all times.

(e) The rope shall have at least three (3) full turns on the drum when extended to its maximum working length and shall make at least one (1) full turn on the drum shaft or around the spoke of the drum, in case of a free drum, and be fastened securely by means of clamps.

(f) The hoisting rope shall be fastened to its load by a spelter-filled socket or by a thimble and adequate number of clamps properly spaced and installed.

(g) Any rope attached to a cage, man-car, or trip used for hoisting or lowering men shall be provided with two (2) bridle chains or cables connected securely to the rope at least three (3) feet above the socket or thimble and to the crosspiece of the cage or to the man-car or trip.

(h) Hoisting equipment, including the headgear, cages, ropes, connections, links and chains, shaft guides, shaft walls, and other facilities shall be inspected daily by a competent person designated by the management. Such inspector shall report immediately to his superior any defects found, and any such defects shall be corrected

promptly. The person making such examination shall make a daily permanent record of each inspection, which shall be open for inspection by interested persons.

(i) The engineer in charge of the hoisting engine shall allow no person to interfere with it or any part of the machinery, and no person shall interfere, or in any way intimidate the engineer in the discharge of his duties. Loitering in the engine room shall be prohibited, and the hoisting engineer shall hold no conversation with any officer of the company or other person while the engine is in motion, or while his attention should be occupied with the business of hoisting. A notice to this effect shall be posted on the engine house in some conspicuous place. The engineer shall thoroughly inform himself on the established code of signals. Signals must be delivered in the engine room in a clear and unmistakable manner.

(j) There shall be a code of signals at each underground mine. One (1) bell shall signify to hoist coal, an empty cage, and to stop either when in motion; two (2) bells shall signify that men are coming up or going down; when a return signal is received from the engineer, the men will get on the cage and ring one (1) bell to hoist; four (4) bells shall signify to hoist slowly, implying danger. The engineer's signal for men to get on the cage shall be three (3) bells. A copy of the above code of signals shall be printed and conspicuously posted at the top and bottom of each shaft, in the engine room, and at each landing.

(k) Whenever the hoisting or lowering of men occurs before daylight or after dark, or when the landing at which men take or leave the cage is obscured by steam or otherwise, there shall be maintained at each landing a light sufficient to show the landing and objects in immediate proximity thereto, and as long as men are underground a good light shall be maintained at the bottom of the shaft, so that persons coming to the bottom may discern the cage and objects in the vicinity.

(Formerly: Acts 1955, c.168, s.61.) As amended by Acts 1979, P.L.231, SEC.15; P.L.165-1997, SEC.8.

IC 22-10-9-2

Cages; hoisting personnel; speed; safety gates

Sec. 2. (a) Cages used for hoisting men shall be of substantial construction; with adequate steel bonnets; with enclosed sides; with gates, safety chains, or bars across the ends of the cage when men are being hoisted or lowered; and with sufficient handholds or chains for all men on the cage to maintain their balance. A locking device to prevent tilting of the cage shall be used on all self-dumping cages when men are transported thereon.

(b) The floor of the cage shall be constructed so that it will be adequate to carry the load and so that it will be impossible for a workman's foot or body to enter any opening in the bottom of the cage.

(c) The speed of the cage in shafts shall not exceed six hundred (600) feet per minute when men are being hoisted or lowered. The

speed of the car in a slope shall not exceed four hundred (400) feet per minute when men are being hoisted or lowered.

(d) Two (2) independent means of signaling shall be provided between the top, bottom, and all intermediate landings of shafts and slopes and the hoisting station. At least one (1) of these means of signaling shall be audible to the hoisting engineer.

(e) Workmen shall wear safety belts while doing work in or over shafts. When men are working in the shaft, a qualified attendant shall be on duty at the cage station designated by the supervisor in charge.

(f) An attendant shall be on duty at the surface and all other cage stations when men are being hoisted or lowered at the beginning and end of each operating shift. Persons entering or leaving the mine at other times shall be properly instructed in the use of the signal system at the mine. Where automatic elevators are used, and the elevator is in charge of a competent person, no other attendant shall be required at the elevator station.

(g) All open entrances to shafts shall be equipped with safety gates at the top and at each landing except at bottom landings. Such gates shall be self-closing and shall be kept closed except when the cage is at such landing. Gates shall not be required at the dumping point of self-dumping cages or skips.

(h) Positive stopblocks or derails shall be placed near the top and at intermediate landings of slopes and at the approaches to all shaft landings.

(i) At the bottom of each hoisting shaft and at intermediate landings, a "run-around" shall be provided for safe passage from one side of the shaft to the other. This passageway shall be not less than five (5) feet in height and three (3) feet in width.

(j) Ice shall not be permitted to accumulate excessively in any shaft where men are hoisted or lowered.

(k) No person shall ride on a loaded cage.

(l) No person shall approach nearer than six (6) feet to any cage landing when such cage is not at rest at such landing; or crowd onto said cage in a rude or boisterous manner; or enter upon any such cage when there are already upon the same, one (1) person for each three (3) square feet of floor space of such cage: Provided, however, That nothing herein contained shall affect any person in charge of the operation of such cage, or the machinery moving or affecting same. *(Formerly: Acts 1955, c.168, s.62; Acts 1971, P.L.358, SEC.9.) As amended by P.L.165-1997, SEC.9.*

IC 22-10-9-3

Roadbeds and tracks; guardrails

Sec. 3. (A) The roadbed, rails, joints, switches, frogs, and other elements of the track of all haulage roads shall be constructed, installed, and maintained in a manner consistent with speed and type of haulage operations being conducted to insure safe operation.

(B) All track switches, except room and entry development switches, shall be provided with properly installed throws, and, where necessary, equipped with guardrails. Room and entry

development switches shall be provided with properly installed latches and bridle bars.

(C) Track switches shall be equipped with properly installed guardrails wherever necessary.

(D) At least 24 inches of clearance shall be provided at switch throws for a distance of not less than 10 feet on each side of such throws.

(E) Rails shall be secured at all joints by means of plates or weld.

(F) Shuttle-car haulage roads shall be maintained as free as practicable from bottom irregularities, debris, and wet or muddy conditions.

(Formerly: Acts 1955, c.168, s.63.)

IC 22-10-9-4

Track-haulage roads; clearance; shelter holes

Sec. 4. (a) Track-haulage roads in entries, rooms, and breakthroughs developed after March 8, 1955, shall have a continuous clearance on one (1) side of at least twenty-four (24) inches from the farthest projection of moving traffic. However, this does not prohibit the changing of the clearance side should it become necessary if adequate clearance is provided on both sides for a distance of not less than one hundred (100) feet and warning signs are provided at such locations.

(b) Track-haulage roads in entries, rooms, and breakthroughs developed after March 8, 1955, shall have a continuous clearance on the "tight" side of at least six (6) inches from the farthest projection of moving traffic.

(c) On haulage roads where trolley lines are used, the clearance for traveling shall be on the side opposite the trolley lines, except where such lines are guarded or are six and one-half (6 1/2) feet or more above the rail.

(d) The clearance space on all track-haulage roads shall be kept free of loose rock, supplies, and other loose materials.

(e) Ample clearance shall be provided at conveyor-loading heads, at conveyor-control panels, and along conveyor lines.

(f) Where it is necessary for persons to cross conveyors regularly, suitable crossing facilities shall be provided.

(g) Shelter holes shall be provided at intervals of not more than one hundred five (105) feet along all haulage entries driven after August 31, 1987, except conveyor entries.

(h) Shelter holes made after March 8, 1955, shall be at least five (5) feet in depth, not more than four (4) feet in width, and six (6) feet in height, or as high as the traveling space if the traveling space is less than six (6) feet high. Room necks and breakthroughs may be used as shelter holes even though their width exceeds four (4) feet.

(i) Shelter holes shall be kept clear of refuse and other obstructions.

(j) Shelter holes shall be provided at manually operated doors and at switch throws, except where more than six (6) feet of side clearance is maintained and at room switches.

(k) At each underground slope landing where persons pass and cars are handled, a shelter hole at least ten (10) feet in depth, four (4) feet in width, and six (6) feet in height shall be provided.

(l) Upon the approach of moving traffic, persons not engaged in haulage operations shall take refuge in shelter holes or other places of safety.

(Formerly: Acts 1955, c.168, s.64.) As amended by P.L.144-1986, SEC.185; P.L.243-1987, SEC.9.

IC 22-10-9-5

Locomotives and conveyors; seating facilities

Sec. 5. (A) Locomotives, mine cars, shuttle-cars, supply cars, conveyors, and all other haulage equipment shall be maintained in a safe operating condition.

(B) Wherever practicable, self-propelled mobile equipment for use underground and ordered after March 8, 1955, shall be equipped with an emergency brake and with safe seating or standing facilities for the use of the operator while tramming.

(Formerly: Acts 1955, c.168, s.65.) As amended by Acts 1979, P.L.231, SEC.16.

IC 22-10-9-6

Locomotives; warning devices; pushing cars; safety equipment

Sec. 6. (a) Locomotives shall be equipped with proper rerailing devices for the rerailing of locomotives and cars.

(b) An audible warning device and headlight shall be installed and maintained in good working order on each locomotive and shuttle-car.

(c) A permissible trip light shall be used on the rear of trips pulled and on the front of pushed trips and trips lowered in slopes; however, trip lights need not be used on cars being shifted to and from loading machines, on cars being handled at loading heads, or during gathering operations at working faces.

(d) Pushing of cars on main haulage roads shall be prohibited, except where necessary to push cars from side-tracks located near the working section to the producing entries and rooms, where necessary to clear switches and side-tracks, and on the approach to cages and slopes.

(e) Back-poling shall be prohibited except at places where the trolley pole can not be reversed or when going up extremely steep grades and then only at very slow speed.

(f) No person, other than the motorman and brakeman, shall ride on a locomotive unless authorized by the mine foreman and then only when safe riding facilities are provided. No person may ride on any loaded car or on the bumper of any car; however, the brakeman may ride on the rear bumper of the last car of a trip pulled by locomotive, and the trip rider of a rope trip shall ride in the safest possible position on the trip.

(g) No person may get on or off moving locomotives or cars being moved by locomotives; however, the brakeman may get on or off the

rear end of a slowly moving trip.

(h) Operators of shuttle cars shall face in the direction of travel except during the loading operation.

(i) All trips and locomotives shall come to a complete stop before cars are coupled or uncoupled by hand.

(j) Standing cars on any track, unless held effectively by brakes, shall be properly blocked or spragged. Cars shall be secured effectively at working faces.

(k) Positive-acting stopblocks or derails shall be used where necessary to protect persons from danger of moving or run-away haulage equipment.

(l) Slides, skids, or other adequate means shall be used on descending trips on grades where the locomotive is not adequate to control the trip, and where practicable, a drag shall be used on ascending trips.

(m) Material being transported shall be so loaded and protected that there is no danger to the motorman or brakeman from sliding of equipment and material.

(n) Where safe seating facilities are provided on self-propelled mobile equipment, the operator shall be seated while such equipment is being trammed.

(o) Operators of locomotives and shuttle cars shall sound a warning before starting such equipment and on approaching curves, side-tracks, doors, curtains, manway crossings, or any place where persons are or are likely to be.

(p) Locomotives following other trips shall maintain a distance of three hundred (300) feet from the rear end of the preceding trip or locomotive unless such locomotives are coupled to the trips.

(q) Where block signals are used, not more than one (1) locomotive, except pushers, shall operate in any signal block at the same time unless by special authority.

(r) Where a dispatcher is employed to control trips, traffic under his jurisdiction shall be moved only at his direction.

(s) Except in emergencies, timbers and other materials not necessary for, or not incident to, the operation of locomotives, cutting machines, loading machines, and coal-drilling machines shall not be transported on such equipment.

(t) Efficient self-propelled transportation shall be available on every section for the purpose of transporting injured persons to the surface.

(Formerly: Acts 1955, c.168, s.66.) As amended by Acts 1979, P.L.231, SEC.17; P.L.165-1997, SEC.10.

IC 22-10-9-7

Man-trips; conveyor belts; operators and passengers; rules

Sec. 7. (A) Man-trips operated by means of locomotives shall be pulled and at safe speeds consistent with the condition of roads and type of equipment used, and shall be so controlled that they can be stopped within the limits of visibility.

(B) Each man-trip shall be under the charge of a certified official

or other competent person designated by a certified official, and it shall be operated independently of any loaded trip of coal or other material.

(C) Man-trip cars shall be maintained in safe operating condition, and enough of them shall be provided to prevent their being overloaded.

(D) Man-trip passengers shall not ride under unguarded trolley wire unless suitable covered man-cars are used.

(E) Supplies or tools shall not be transported in the same car or cage with men on any man-trip, except in special compartments in such cars, and all persons shall ride inside the cars except the motorman and brakeman.

(F) Men shall not board or leave moving man-trip cars; they shall remain seated while in moving cars, and shall proceed in an orderly manner to and from man-trips.

(G) A waiting station with sufficient room, ample clearance from moving equipment, and adequate seating facilities shall be provided where men are required to wait for man-trips or man cages, and the men shall remain in such station until the man-trip or man cage is ready to load. Men shall be permitted to unload from man-trips only at man-trip stations, except that persons assigned to special duties along haulageways, may unload at any point if clearance from moving equipment is provided.

(H) Trolley and power wires shall be guarded effectively at man-trip stations where there is a possibility of any person coming in contact with energized electric wiring while boarding or leaving the man-trip. Deenergizing switches, used in conjunction with signal lights to indicate when such wires have been deenergized, may be used in lieu of guards at man-trip stations.

(I) When belts are used for transporting men, the area of such belts upon which men are riding shall be free of loose coal or rock, and a minimum clearing of 18 inches shall be maintained between the belt and the roof or cross bars, projecting equipment, cap pieces, overhead cables, wiring, and other objects; but where the height of the coal bed permits, the clearance shall be not less than 24 inches. Control switches shall be provided at all places where men board or leave belts regularly.

(J) The belt speed shall not exceed 250 feet a minute while men are loading, unloading, and being transported.

(K) The space between men riding on a belt line shall be not less than 5 feet.

(L) Adequate clearance and proper illumination shall be provided where men board or leave conveyor belts.

(M) An official or other responsible person designated by him shall be in attendance while men are boarding or leaving belts.

(Formerly: Acts 1955, c.168, s.67.)